



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,862	04/06/2001	Shinji Kuga	0505-0813P	3205

2292 7590 01/21/2004

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
----------	--------------

3682

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,862

Applicant(s)

KUGA ET AL.

Examiner

Timothy P McAnulty

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-13, 15, 16 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-13, 15, 16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4, 7-13, 15, 16, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of US Patent No. 4,793,301 to Ishikawa (Ishikawa '301) in view of Bacher and further in view of Siblik.

Ishihara discloses in figure 4 a V-belt transmission comprising a crankshaft 56 connected to an engine 32; a transmission case (not referenced) rotatably swingably supported about said crankshaft; a driving pulley having a fixed pulley half 58 fixed to said crankshaft; a axially movable pulley half 68; a plurality of cooling fins 64 located on said fixed pulley half; an outside air inlet port (un-referenced) arranged opposite said fins; a short sleeve (un-referenced); a ramp plate 76; and a long sleeve 74; wherein said driving pulley coupled to a driven pulley so as to transmit a driving force to said driven pulley wherein the driven pulley is connected to an axel 148 of a wheel drive section of the transmission via a driven shaft 94, a counter shaft 150, and a plurality of transmission gears 140.

Ishihara does not disclose said crankshaft specifically having a plurality of crank pins and a crank weight. However, Ishikawa '301 teaches in figures 1 and 6, an engine connected to a V-belt transmission comprising a crank shaft having a plurality of integral crank pins and an crank weight. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Ishihara in view of the teachings of Ishikawa '301 to

Art Unit: 3682

provide a crankshaft having a plurality of crank pins and a crank weight so as to provide a two cylinder engine.

Ishihara does not disclose said fixed pulley half being fixed to said crankshaft by a bolt. However, Bacher teaches in figure 1, a fixed pulley half of a variable radius pulley fixed to a shaft with a bolt. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Ishihara in view of the teachings of Bacher to fix the fixed pulley half to the crankshaft by a bolt engaged in a bolt hole within the crankshaft to provide a greater thread engagement without increasing the overall length of the crankshaft.

Ishihara does not disclose said bolt hole being chamfered. However, Siblik teaches in figure 3 and lines 29-39 of column 4, a chamfered bolt hole in which a bolt is threadingly engaged. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ishihara to provide a chamfer in order to assist bolt entry and guide the bolt into the bolt hole.

Response to Arguments

3. Applicant's arguments filed 06 November 2003 have been fully considered but they are not persuasive. As broadly claimed, the transmission case of Ishihara, which is rotatably supported relative to the crankshaft, is *swingably supported around the crankshaft*. Figure 4 of Ishihara clearly discloses a transmission unit 34 enclosed by a transmission case 50 connected to said crankshaft 56 via a bearing (not referenced). The limitation that the transmission case is *swingably supported around the crankshaft* is not narrowly construed to limit the transmission case to be not fixed to the engine block.

It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 170 USPQ 209 (CCPA1971).

The examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of the disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re Simon*, 174 USPQ (CCPA 1972). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA 1969). As such the teachings relied upon in the secondary references are applicable.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 3682

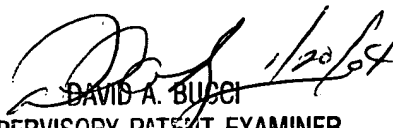
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm 
16 January 2004


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600